

Economic and Social Factors Impacting Agriculture GHG Mitigation

It is estimated that globally about one third of all human-induced GHG emissions come from agriculture and land-use change. Agricultural producers can reduce their production of GHGs and potentially off-set GHG production from other sectors of the economy. Potential means for reducing GHG emissions include increasing energy efficiencies, sequestering carbon in plants and soils, and producing renewable energy through agricultural and food wastes or biomass crop sources.

Agricultural producers' decisions to adopt GHG mitigating practices will depend upon the types and levels of economic and social incentives sufficient to modify their behavior. Reducing GHG emissions through energy efficiency can be a relatively low-cost investment and potentially could be very successful at reducing energy producing GHG emissions. Adopting certain technologies such as manure digesters or poultry burners can be enormously expensive and may not offset the economic costs without significant social investment. Successful biomass production will depend upon favorable market conditions and the producer's perceived level of risk. There is a lack of understanding regarding the ability to quantify the private and social benefits and costs associated with these technologies.

The economic and social knowledge base regarding producer perceptions and what their incentive needs are in the Northeast is limited. Increased outreach regarding useful and usable GHG reduction practices is needed. Some factors include:

- Northeast geographical differences in technical assistance and ability as well as the costs of GHG mitigation
- Cost considerations that limit the full technical potential of GHG mitigation from the agricultural sector in the Northeast
- Risk and uncertainty due to changing economic, technological and climactic factors
- Financial constraints and access to capital
- Sociological factors, such as age and educational level of producers, farm type and size, access to information and who their trusted sources of information are.

Core Issues for workshop:

- Is there national economic or social research that could apply to Northeast conditions? If so, what?
- To address the conditions in the NE, what new economic and social science research should be prioritized?
- How can economic information help and what type of information would be needed to achieve the stated GHG goals in the most economically efficient means?
- What social information is needed to better target GHG reduction strategies?